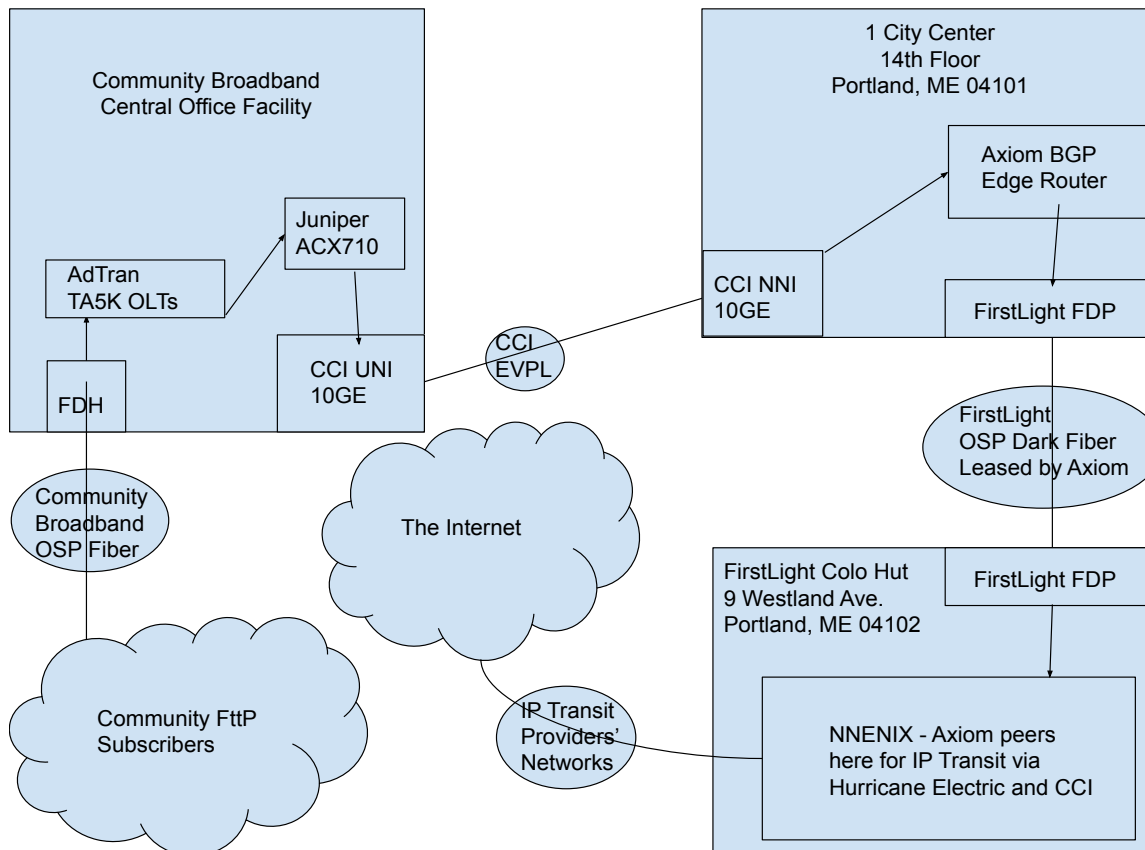


## ATTACHMENT A1 – SYSTEM DESCRIPTION AND MAP

This Schedule describes the key components of the Network including the physical description, the internet pathway and the various operators and locations of key aspects of the delivery system. The exact details of these locations may change from time to time and are included in the As-Built documentation.

The fiber optic system (“Network”) being deployed in Vienna will bring a dedicated fiber connection to each subscribing home and business through a centralized split system that begins at the Central Office (CO) equipment. The Network will support speeds of up to 10Gbps of symmetrical service (XGS-PON). The Network shall be capable of handling future growth in new homes or businesses expected in the community and is considered future-proof for the next 20 years or more. The Network’s architecture will have limited ports capable of delivering 10Gbps (XGS-PON) of service to the right premises equipment, which can be expanded with upgrades to the electronics and home equipment in the future, as needs/demand dictate.

Below is a depiction of the network architecture that will deliver bulk bandwidth traffic to and from the internet.



This network will be designed as a “centralized split” system in which each home will have a dedicated fiber delivered directly from the Central Office equipment. All fiber lines will be run over existing utility poles, where feasible. Fiber optic systems allow for future needs and maximum privacy with emerging telehealth and online education while creating a “fiber pipe” that can deal with all the communications needs, including data, phone, and streaming content, while creating a generational solution that will provide capable infrastructure for the community to create new opportunities for residents, visitors and businesses.

The system design accounts for a connection to any home within the bounds of the municipality. We accomplish this goal by doing three things.

- License 100% of utility poles in the community, ensuring that the main truck line and smaller feeder lines will be hung as part of the project.
- Install 100% of the SNAPS (Subnetwork Access Protocol) necessary to provide drops to any home requesting service- during the construction phase or anytime for the life of the project.
- Provide enough fiber strands in all areas of the network to allow additional direct fiber connections to the premises.
- The grant provides funding of CPE units for 270 connections- just under 70% of the 400 homes in the community, ensuring that no customer requesting service during the construction phase will be burdened with any costs.

Free installation will be available to anyone signing up for service through the end of construction.

Should requests for service exceed the 270 homes planned for in the grant and during the construction period, those additional costs will be shared between Axiom and the Owner, where the owner will be responsible for the \$200 labor install costs and the Owner will be responsible for the \$200 CPE and associated materials for any additional connection request made above the 270 target customer subscriptions during the construction phase. This will ensure free installation for subscribers requesting service before construction is completed.

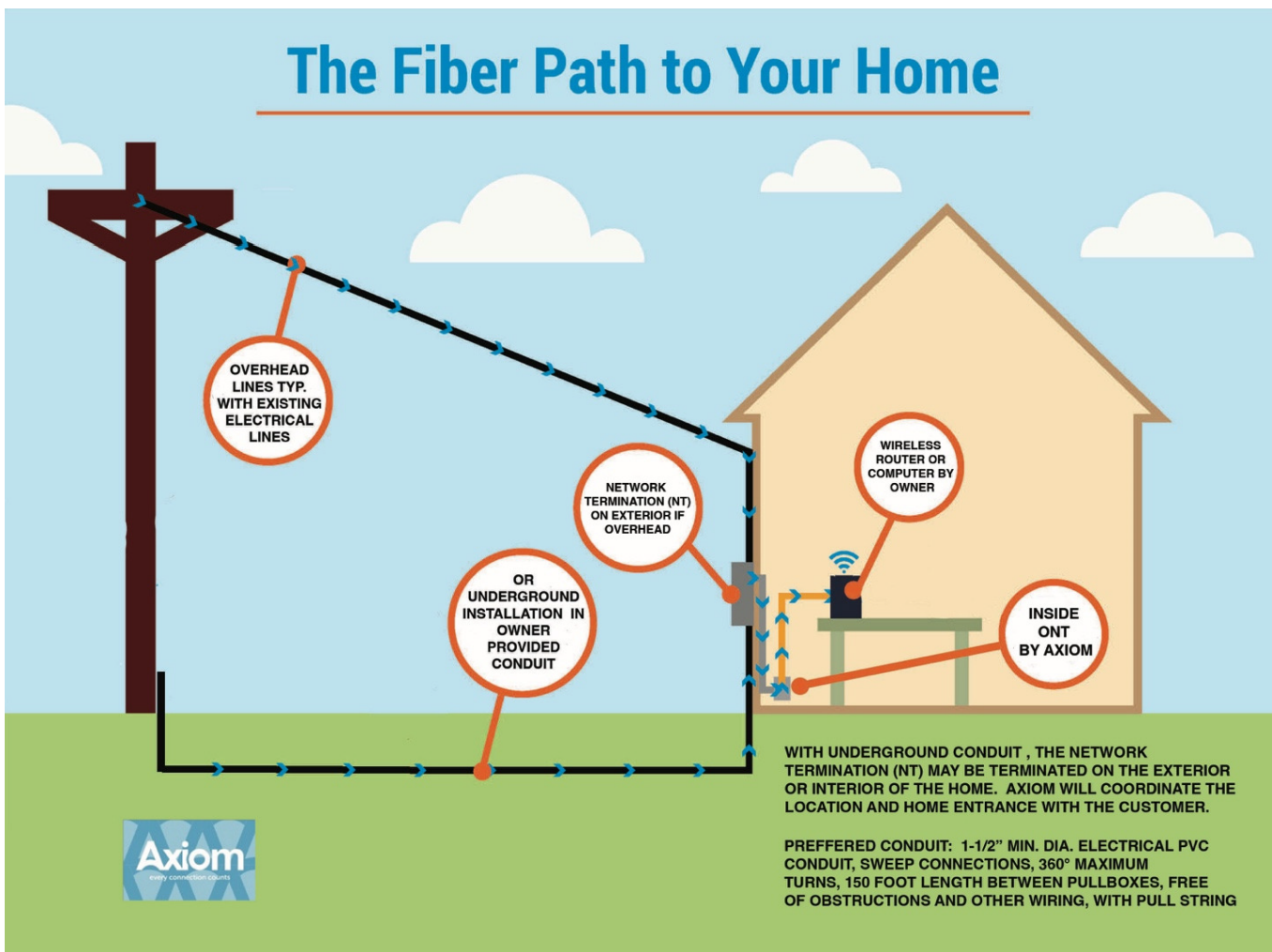
Once the construction period ends, a flat fee of \$299 will be charged for any new requests for service. Any cost associated with subscriber requests after construction is completed will be the sole responsibility of Axiom, unless a request for service falls outside of a “standard” installation which costs will then be borne by the subscriber requesting service.

## Axiom Standard Installation Guidelines for new Fiber Optic Internet Service

This document is a visual guide to Axiom's methods to install fiber optic service at a subscriber's home. This process has two distinct stages, and a few different options are available at each stage.

The first step towards getting connected to the new fiber optic service is for Axiom to install a "drop cable" from the fiber trunk cable on the street to your house. After the drop cable is installed and thoroughly tested, the second half of the installation can be completed. This is when our technicians install the electronics at the house and activate your new internet connection.

There are two primary ways to connect a fiber cable to house. Each may require a different level of preparation on the homeowner's part, depending on how the current utilities come to your home and how your property was developed. We describe all this below.



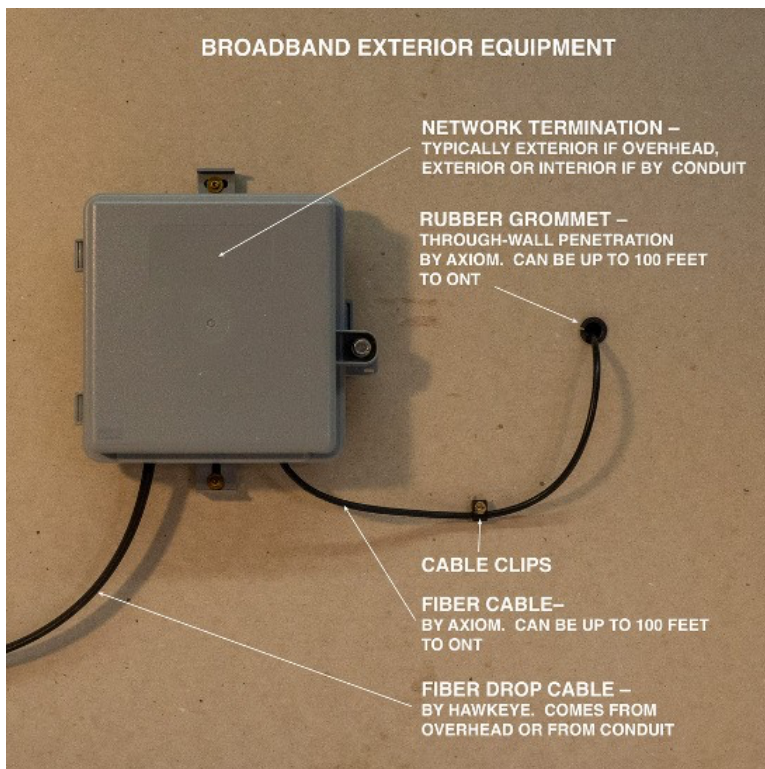
## First, we've got to get the fiber to your house from the street

As we mentioned, there are two primary ways we can bring fiber from the street to your house.

- 1) **Aerial Installation:** For most homes, installing a drop cable in the air from the nearest utility pole makes the most sense. If your electrical service is delivered overhead, we'll follow those cables unless you say otherwise.

**Underground from the nearest utility pole:** Subscribers whose current utilities come underground may prefer the new fiber optic service to come to their property the same way. If the homeowner provides a "viable cable path" for our drop cable construction crews to use, we'll pull in the fiber cable at no additional cost. Conduits must be clear of obstructions, have enough free space for the new cable, and, very importantly, must not contain electrical wires. In the absence of a viable underground cable path, it is the homeowner's responsibility to install a new connection to the home. Other less used options include buried heavy duty cable or a combination of aerial, underground or buried. Under these circumstances including finding an unusable conduit while attempting to pull in the drop fiber, we'll work with you to explain the situation and your options and provide referrals to local contractors whenever possible.

## Once we have the fiber run in from the street, we need to attach it to your house



Axiom's Outside Plant Contractor will bring the fiber cable from the street to your house. Once the fiber is at your building, they need to mount a small plastic box (a Network Interface Device "NID") to terminate and test the new fiber.

The NID is typically mounted on the exterior of your house near the existing power meter or wherever your conduit terminates on the outside of the house. If you have underground utilities and your conduit terminates inside your home, Axiom will coordinate with you for interior access to mount the NID.

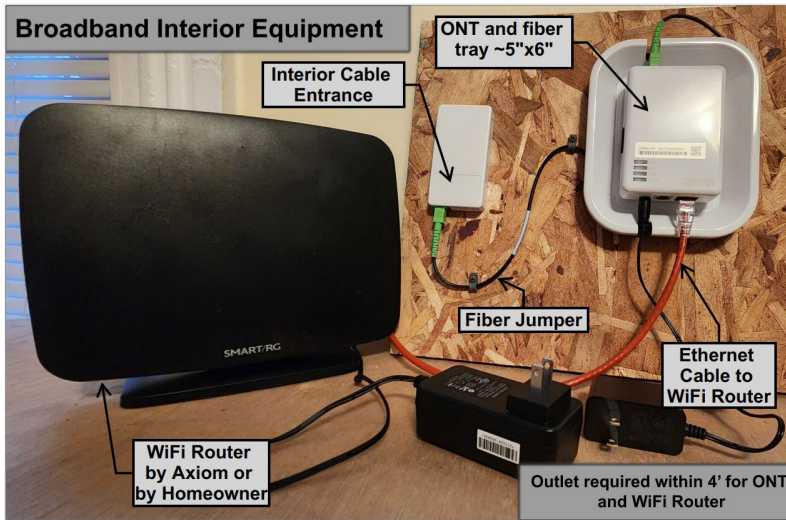
The exterior portion of the installation, including the gray plastic NID, is depicted to the left.

The interior installation, which includes placing a cable from the NID and through the wall, as shown to the left, is completed on a separate visit and is described below.

Finally, we bring the cable into your house, install the electronics, and activate the service

In the final step of installing the new fiber optic service at your house, Axiom technicians must access your home, bring a cable through the wall from the NID, and install and test the electronics.

There are several key distances to keep in mind as you think about where you'd like your internet equipment placed.



The first thing to think about is where you'd like Axiom to come through the wall from the NID. The wall penetration must be:

- Within 100' of the NID (closer is better)
- Accessible from the ground w/o a ladder
- On the same exterior wall as the NID

Often there is an electrical panel just inside the

building from the power meter. Many homeowners prefer that we mount our equipment near the breaker panel to keep all the utilities together in one place.

Once inside the house, we will mount a small wall plate (see "interior cable entrance" above) where the cable comes into your home. This will be directly on the inside of the wall from the exterior cable entrance and protects the fiber cable we bring in from the outside.

We will run a small jumper cable from the exterior wall plate to the actual electronics ("411 ONT" in the picture above) that power your new internet connection. These electronics need to be mounted:

- On the inside of the exterior wall that the NID is mounted on the outside of
- Within 4' of the "interior entrance"
- No more than 4' from a power outlet

Clustering your cable entrance and ONT as close to each other as possible, and as close to an outlet as possible, will improve the visual appeal of your installation, reduce the time needed to complete your installation, and better protect your fiber cables from getting snagged and damaged in the future.

The final step of the installation is to plug in and configure a Wi-Fi router so you can get online wirelessly with all your devices. Axiom can provide this router for a lease fee of \$7.50/mo (in

which case we install, test, and support it), or the subscriber can acquire and install their own router (which will not be supported by Axiom).

While these guidelines reflect the most common installations we see in the field, every home is different, and we recognize that these methods may not fit your circumstances exactly. If you have questions or concerns or want to discuss a custom installation to better fit your needs, please do not hesitate to discuss this with your Axiom salesperson by calling 207-271-2801. Axiom may be able to customize your installation for an additional charge and can refer you to outside contractors who specialize in interior data wiring if you need a more robust solution than Axiom can offer.

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# Vienna Map

